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# Tar Sands Oil Will Be Freed By Ultrasonics

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Western Tar Sands Inc. of Denver announced Tuesday that its ultrasonic process for extracting bitumen from tar sands will cost \$23.80 a barrel.

That compares with \$34 a barrel being paid for conventional crude oil in Osage County, Okla., the company's president noted.

Louis I. Hart Jr. said the estimate comes from a report by Science Applications Inc., a LaJolla, Calif., engineering and design consultant firm working for Western Tar Sands.

Hart said the per-barrel estimate for the synthetic crude includes all solvent, mining and operating costs.

The Denver company broke ground for a plant near Vernal, Utah, last spring. Hart estimated that because of delays, the 30-barrel-a-day pilot plant will cost from \$1.5 million to \$2 million.

The patented ultrasonic process uses the same principle involved in the machines draftsmen use to clean their pen nibs, only instead of ink, it separates the bitumen from the sand grains.

Science Applications is supervising the design and construction of the pilot unit near Vernal at Raven Ridge, where the company has a

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farmout from Pacific Gas Transmission Co. Western Tar Sands also has seven non-contiguous tar sands leases in Utah.

The company controls about 5,800 acres of tar sands in the state.

The entire state of Utah is estimated to have tar sands deposits totaling some 30 billion barrels, in addition to its shale oil deposits.

Synthetic crude from tar sands has been produced for some time in Canada. However, the deposits in Alberta tend to be larger than the scattered sites in the United States.

"We are delighted with the results of this study, which indicates the economic feasibility of our extraction process at current price levels for a barrel of crude oil," Hart said.

The price estimate is based on calculations for a commercial-sized plant with a capacity of 1,000 to 2,000 barrels a day, using the 8 percent bitumen content material, he said.

With richer tar sands, the operating costs decline, Hart noted.

In the Western Tar Sands process, the tar sand material is mined and then crushed and mixed with a solvent — condensate liquids from natural gas, wheatead gasoline or other hydrocarbon solvent — before being treated with sound waves to separate out the sand.

Bitumen normally is about the consistency of roofing tar, so the material must be cut in order to move it through a pipeline.

The company has completed site preparation, installed a security fence, office, telephone service, concrete footings and equipment slabs at Raven Ridge, Hart said. The company is just beginning to get some components assembled, and he estimated that the plant will be operational by about February 1982.